



PATENT *fw*

-1-

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Andrea Caprara, et al.

Application No.: 10/695,583

Filed: October 28, 2003

For: HIGH-POWER EXTERNAL-CAVITY  
OPTICALLY-PUMPED  
SEMICONDUCTOR LASERS

Confirmation No.: 5349

Group Art Unit: 2828

Examiner: Unknown

**SUBSTITUTE INFORMATION  
DISCLOSURE STATEMENT**

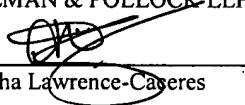
353 Sacramento Street, Suite 2200  
San Francisco, CA 94111  
Telephone: (415) 772-4900  
Facsimile: (415) 398-2890

M/S AMENDMENT  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope, addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on May 18, 2005.

STALLMAN & POLLOCK LLP

Dated: 05/18/2005 By:   
Tanisha Lawrence-Caceres

Sir:

Applicant(s) submit(s) herewith patents, publications or other information [attached hereto and listed on the attached Form PTO-1449 (modified)] of which they are aware, which they believe(s) may be material to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 CFR § 1.56.

**This Substitute Information Disclosure statement is being submitted to provide the Examiner with copies of any non-U.S. patents, patent applications and articles.**

This Information Disclosure Statement:

- (a)  accompanies the new patent application submitted herewith. 37 CFR § 1.97(a).
- (b)  is filed within three months after the filing date of the application or within three months after the date of entry of the national stage of a PCT application as set forth in 37 CFR § 1.491.

(c)  as far as is known to the undersigned, is filed before the mailing date of a first Office Action on the merits, or before a first office action after filing a Request for Continued Examination under §1.114.

(d)  is filed after the first office action and more than three months after the application's filing date or PCT national stage date of entry filing but, as far as is known to the undersigned, prior to the mailing date of either a final rejection or a notice of allowance, whichever occurs first, and is accompanied by either the fee (\$180) set forth in 37 CFR § 1.17(p) or a certification as specified in 37 CFR § 1.97(e), as checked below.

(e)  is filed after the mailing date of either a final rejection or a notice of allowance, whichever occurred first, and the Issue Fee has not been paid, and is accompanied by the fee (\$180) set forth in 37 CFR § 1.17(p) and a certification as specified in 37 CFR § 1.97(e), as checked below. This document is to be considered as a petition requesting consideration of the information disclosure statement.

[If either of boxes (d) or (e) is checked above, the following "certification" under 37 CFR § 1.97(e) may need to be completed.] The undersigned certifies that:

(f)  Each item of information contained in the information disclosure statement was cited in a communication mailed from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this information disclosure statement.

(g)  No item of information contained in this information disclosure statement was cited in a communication mailed from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned after making reasonable inquiry, was known to any individual designated in 37 CFR § 1.56(c) more than three months prior to the filing of this information disclosure statement.

A list of the patent(s) or publication(s) is set forth on the attached Form PTO-1449 (Modified).

A copy of the items on PTO-1449 (Modified) is supplied herewith, except as noted below.

Those patent(s) or publication(s) which are marked with an asterisk (\*) in the attached form PTO-1449 (Modified) are not supplied because they: (a) are either U.S. Patents or published U.S. patent applications; (b) are a U.S. patent application, the image of which is stored in the USPTO's file wrapper (IFW) system; or (c) were previously cited by or submitted to the Office in a prior application no. \_\_\_\_\_, filed \_\_\_\_\_, and relied upon in this application for an earlier filing date under 35 U.S.C. § 120.

A concise explanation of relevance of the items listed on form PTO-1449 (Modified) is:

- (h)  not given
- (i)  given for each listed item
- (j)  given for only non-English language listed item(s) [Required]
- (k)  is in the form of an English language copy of a Search Report from a foreign patent office, issued in a counterpart application, which refers to the relevant portions of the references [copy attached].

The Examiner is reminded that a "concise explanation of the relevance" of the submitted items "may be nothing more than identification of the particular figure or paragraph of the patent or publication which has some relation to the claimed invention," MPEP § 609.

While the information and references disclosed in this Information Disclosure Statement may be "material" pursuant to 37 CFR § 1.56, it is not intended to constitute an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

In accordance with 37 CFR § 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR § 1.56(a) exists. It is submitted that the Information Disclosure Statement is in compliance with 37 CFR § 1.98 and MPEP § 609 and the Examiner is respectfully requested to consider the listed references.

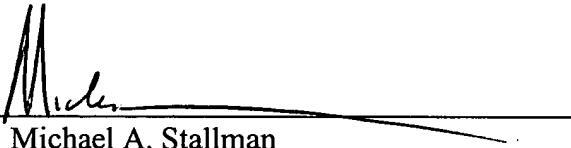
- The Commissioner is hereby authorized to charge our Deposit Account No. 50-1703, under Order No. COHL-3643, for any fees required in connection with the filing of this Information Disclosure Statement. **A duplicate copy of this Notice is enclosed for this purpose.** In particular, in the event that an Office Action has crossed in the mail with this Information Disclosure Statement, the Commissioner is authorized to charge the

above-named deposit account for any fees required pursuant to CFR §§ 1.17(p) or 1.17(i)(1).

Respectfully submitted,

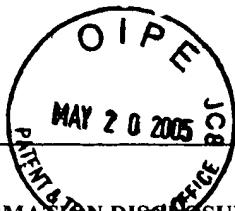
STALLMAN & POLLOCK LLP

Dated: May 18, 2005

By: 

Michael A. Stallman  
Reg. No. 29,444

Attorneys for Applicant(s)



INFORMATION ON DISCLOSURE CITATION (Use several sheets if necessary)	Docket Number (Optional) <b>COHL-3643</b>		Application Number <b>10/695,583</b>
	Applicant(s) <b>Andrea Caprara et al.</b>		
	Filing Date <b>October 28, 2003</b>	Group Art Unit <b>2828</b>	

### U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	*AA	5,050,179	09/17/1991	Mooradian	372	44	04/20/1989
	*AB	5,131,002	07/14/1992	Mooradian	372	50	02/12/1991
	*AC	5,289,485	02/22/1994	Mooradian	372	45	12/22/1992
	*AD	5,436,920	07/25/1995	Minemoto et al.	372	21	05/18/1994
	*AE	5,461,637	10/24/1995	Mooradian et al.	372	92	03/16/1994
	*AF	5,627,853	05/06/1997	Mooradian et al.	372	92	03/16/1995
	*AG	5,991,318	11/23/1999	Caprara et al.	372	22	10/23/1998
	*AH	6,285,702	09/04/2001	Caprara, et al.	372	92	03/05/1999

### FOREIGN PATENT DOCUMENTS

REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
AI	DE 25 22 338 A1	12/04/1975	Germany	H01S	3/10		+
AJ	WO 93/14542 A1	07/22/1993	PCT	H01S	3/109		
AK	DE 42 28 862 A1	03/03/1994	Germany	H01S	3/109		+
AL	WO 94/15386 A1	07/07/1994	PCT	H01S	3/094		
AM	DE 43 15 580 A1	11/17/1994	Germany	H01S	3/043		+
AN	WO 95/25366 A2	09/21/1995	PCT	H01S	3/085		
AO	WO 98/43329	10/01/1998	PCT	H01S	3/085		

+ See "AV" Search Report below

### OTHER DOCUMENTS

(Including Author, Title, Date, Pertinent Pages, Etc.)

AP	J.V. Sandusky et al., "A CW External-Cavity Surface-Emitting Laser," <i>IEEE Photonics Technology Letters</i> , Vol. 8, No. 3, March 1996, pp. 313-315.
AQ	M. Kuznetsov et al., "High-Power (>0.5-W CW) Diode-Pumped Vertical-External-Cavity Surface-Emitting Semiconductor Lasers with Circular TEM <sub>00</sub> Beams," <i>IEEE Photonics Technology Letters</i> , Vol. 9, No. 8, August 1997, pp. 1063-1065.
AR	A. Rosiewicz et al., "Optical pumping improves VCSEL performance," <i>Laser Focus World</i> , June 1997, pp. 133-136.
AS	W.J. Alford et al., "Intracavity frequency doubling of an optically-pumped, external-cavity surface-emitting semiconductor laser," <i>Advanced Solid State Laser Conference, Sandia National Laboratories</i> , SAND-98-2108C, CONF-990105, December 31, 1998, 5 pages in length.
AT	Wang-Hua Xiang et al., "Femtosecond external-cavity surface-emitting InGaAs/InP multiple-quantum-well laser," <i>Optics Letters</i> , Vol. 16, No. 18, September 15, 1991, pp. 1394-1396.
AU	A.H. Paxton et al., "Design of external cavities for vertical-cavity semiconductor lasers," <i>Proceedings of the SPIE - The International Society for Optical Engineering</i> , 1993, Vol. 1868, pp. 235-243.
AV	PCT International Search Report, mailed February 25, 2000, for International Application No. PCT/US99/24303, filed October 18, 1999, 7 pages in length.

Examiner	Date Considered
Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	